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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/669,835

09/24/2003

Steven J. Mastrianni

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12/24/2008

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EXAMINER

ARMSTRONG, ANGELA A

ART UNIT

PAPER NUMBER

2626

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/669,835	<b>Applicant(s)</b> MASTRIANNI ET AL.	
	<b>Examiner</b> ANGELA A. ARMSTRONG	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 7, 15, 20-23, 26, 27, 35, 40-45, 48, 49, 57 and 62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 15, 20-23, 26, 27, 35, 40-45, 48, 49, 57 and 62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is in response to the amendment filed January 7, 2008, in which applicant has amended the claims 1, 21, 23, and 43 and cancelled claims 10-11, 16, 30-31, 36, 52, and 58.

#### ***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3, 6-7, 15, 21, 23, 26-27, 35, 40-41, 43, 45, 48-49, 57, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Resnick in view of Clark and further in view of McCalmont (US Patent No. 4,195,202).

Resnick discloses a method and apparatus for communication operator privacy. Regarding claims 1, 21, 40-41, 43, and 62, Resnick discloses a method for masking speech (Figure 16; col. 7, lines 33-60; col. 8, lines 33-59) generating an electrical signal representative of the speech (118); using said electrical signal to provide an audio signal which cancels the speech (118, 119); providing a speech masking signal to mask any speech not canceled (125).

Resnick does not disclose the speech masking signal is produced by sampling portions of the speech and providing the portions in reverse order. Clark discloses a secrecy communication system, in which an audio signal is sampled and stored in a normal order and then provided in a reverse or abnormal order (col. 7, line 40 to col. 8, line 7) so as to obtain unintelligible secured signals (col. 1, lines 3-7 and 41-51). It would have been obvious to one of ordinary skill at the

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time of the invention to modify the system of Resnick to implement reverse ordering of the audio signals, as suggested by Clark, for the purpose of providing secured signals.

Resnick does not specifically teach at least one of amplitude or frequency of the masking signal is changed at variable intervals. McCalmont discloses a voice privacy system, for enhancing the privacy of a transmission by disguising the amplitude characteristics and cadence content of transmitted voice signals, wherein portions of the signals are frequency inverted, delayed in time, and recombined with other signals to produce a composite signal for transmission to a remote receiver (col. 4, line 27 to col. 6, line 56). McCalmont specifically teaches the system provides an improved voice privacy system that enhances the privacy of transmitted voice signals (col. 2, lines 37-43). It would have been obvious to one of ordinary skill at the time of the invention to implement producing the masking signal via pitch inverting the speech, as taught by McCalmont, for the purpose of enhancing the privacy of transmitted voice signals, as suggested by McCalmont.

5. Regarding claims 3, 23, and 45, Resnick does not teach the speech masking signal is produced by rearranging the speech so that it is not intelligible. Clark discloses a secrecy communication system, in which an audio signal is sampled and stored in a normal order and then provided in a reverse or abnormal order (col. 7, line 40 to col. 8, line 7) so as to obtain unintelligible secured signals (col. 1, lines 3-7 and 41-51). It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Resnick to implement reverse ordering of the audio signals so that the signals are unintelligible, as suggested by Clark, for the purpose of providing secured signals.

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6. Regarding claims 6, 26, and 48, Resnick does not disclose the speech masking signal is produced by reading out digital representations of signals disruptive to the understanding of speech from a memory and converting the digital representations to said speech masking signal. Clark discloses a secrecy communication system, in which an audio signal is sampled and stored in a normal order and then provided in a reverse or abnormal order (col. 7, line 40 to col. 8, line 7) so as to obtain unintelligible secured signals (col. 1, lines 3-7 and 41-51). It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Resnick to implement reverse ordering of the audio signals, as suggested by Clark, for the purpose of providing secured signals.

Regarding claims 15, 35, and 57, Resnick does not disclose the speech masking signal is produced by providing the portions with a predetermined time delay. McCalmont discloses a voice privacy system, for enhancing the privacy of a transmission by disguising the amplitude characteristics and cadence content of transmitted voice signals, wherein portions of the signals are frequency inverted, delayed in time, and recombined with other signals to produce a composite signal for transmission to a remote receiver (col. 4, line 27 to col. 6, line 56). McCalmont specifically teaches the system provides an improved voice privacy system that enhances the privacy of transmitted voice signals (col. 2, lines 37-43). It would have been obvious to one of ordinary skill at the time of the invention to implement producing the masking signal via pitch inverting the speech, as taught by McCalmont, for the purpose of enhancing the privacy of transmitted voice signals, as suggested by McCalmont.

Regarding claims 7, 27, and 49, Resnick and Clark do not specifically teach the digital representations used in producing the masking signal are in the form of pulse code modulation.

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McCalmont discloses a voice privacy system, for enhancing the privacy of a transmission by disguising the amplitude characteristics and cadence content of transmitted (pulse code modulated or adaptive pulse code modulation) voice signals (col. 4, line 27 to col. 6, line 56).

McCalmont specifically teaches the system provides an improved voice privacy system that enhances the privacy of transmitted voice signals (col. 2, lines 37-43). It would have been obvious to one of ordinary skill at the time of the invention to implement producing the masking signal via pulse code modulated or amplitude pulse code modulated data, for the purpose of enhancing the privacy of transmitted voice signals, as suggested by McCalmont.

7. Claims 2, 20, 22, 42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Resnick in view Clark and McCalmont and further in view of Hillis et al (US Patent No. 7,184,952).

8. Regarding claims 2, 22, and 44, Resnick, Clark and McCalmont do not teach the speech masking signal is supplied by a babble generator. Hillis discloses a method and system for masking speech, which produces an obfuscated speech signal that is used to mask a stream of speech (col. 5, line 18 to col. 6, line 36) and teaches the system is advantageous in enhancing the privacy of transmitted voice signals (col. 2, lines 37-43). It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Resnick to implement masking the speech with an obfuscated speech signal, as suggested by Hillis, for the purpose of enhancing the privacy of the transmitted speech, as suggested by Hillis.

9. Regarding claims 20 and 42, Resnick, Clark, and McCalmont do not specifically teach the masking signal is provided only when speech is present. Hillis discloses implementing the

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masking only during moments of active conversation (col. 6, lines 46-50). It would have been obvious to one of ordinary skill at the time of the invention to implement masking only during moments of active conversation, as suggested by Hillis, for the purpose of providing the masking processing only when needed so as to minimize unnecessary processing.

### ***Response to Arguments***

Applicant's arguments filed September 5, 2008 have been fully considered but they are not persuasive. Applicant argues the Examiner has noted that Resnick does not disclose that the speech masking signal is produced by sampling portions of the speech and providing the portions in reverse order. Applicant also argues the teachings of providing portions of the samples in reverse order of Clark is of limited or no import with respect to what is recited in claims 1, 21 and 43. Regarding Hillis, Applicant argues there is no teaching or suggestion of using speech in reverse order, and certainly no teaching or suggestion of changing at least one of amplitude and frequency of the masking signal at variable intervals. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this instance, McCalmont was cited as teaching a voice privacy system, for enhancing the privacy of a transmission by disguising the amplitude characteristics and cadence content of transmitted voice signals, wherein portions of the signals are frequency inverted, delayed in time, and recombined with other signals to produce a composite signal for

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transmission to a remote receiver and specifically teaches the system provides an improved voice privacy system that enhances the privacy of transmitted voice signals.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA A. ARMSTRONG whose telephone number is (571)272-7598. The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick N. Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Angela A Armstrong/  
Primary Examiner, Art Unit 2626